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Substitute for Form 1470		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	10/669,977
		Filing Date	September 24, 2003
		First Named Inventor	Cai, et al.
		Art Unit	1754
		Examiner Name	
Sheet	1	of	1
		Attorney Docket Number	P-1111B

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 1 of 1

Examiner Signature	An Allen	Date Considered	8/2/05
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PROSPECTA (10-95)

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Information Disclosure Statement by Applicant (use as many sheets as necessary)			
Sheet 1 of 1		Attorney Docket Number P-1111B	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <small>Complete if Known</small>		Application Number 10/669,977 Filing Date SEPTEMBER 24, 2003 First Named Inventor Cai, et al. Group Art Unit Examiner Name	

U.S. PATENT DOCUMENTS

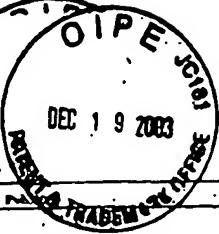
FOREIGN PATENT DOCUMENTS

Examiner Signature	<u>John</u>	Date Considered	8/2/05
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0-273-1037

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Sheet	1	of	5	Attorney Docket Number

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials	Cat No.	Description of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, compilation, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	73
(CAT)		D.S. Newsome, Catal. Rev., 21, p. 275 (1980)	
		Ginés, M.J.L., et al. "Activity and structure-sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts," Applied Catalysts A: General 131, pages 283-296, 295 (1995)	
		M.J.L. Ginés and C.R. Apesteguia, "Thermal Decomposition of Cu-Based Hydroxycarbonate Catalytic Precursors for the Low-Temperature CO-Shift Reaction," Journal of Thermal Analysis 50, pages 745-756 (1997)	
		H. Topsoe and M. Boudart, J. Catal., 31, p. 346 (1973)	
		J. Van Brakel, et al., Powder Technology, 29, p.1 (1981)	
(CAT)		Figueiredo, R. Tavares, et al. "Spectroscopic evidence of Cu-Al interactions in Cu-Zn-Al mixed oxide catalysts used in CO hydrogenation." Journal of Catalysts, 178, 146-152 (1998)	

Examiner Signature	<i>John</i>	Date Considered	8/24/05
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PL-273-10977 PL-0005

FORM 62.1

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PTO-902B (10-94)

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Sheet	2	of	5

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cat No.*	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, dissertation, journal, series, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	TP
CAS		Figueiredo, R. T., et al. "The role of the coprecipitation sequence of salt precursors on the genesis of Cu-ZnO-Al ₂ O ₃ catalysts. Synthesis, Characterization and Activity for Low Temperature Shift Reaction." <i>Brazilian Journal of Chemical Engineering</i> , Volume 5, No. 02, pages 168-176 (June, 1998)	
		T. Van Herwijnen, et al., "Kinetics and Mechanism of the CO Shift on Cu/ZnO," <i>Journal of Catalysis</i> , 63, 83-93 (1980)	
		Jae Sung Lee, et al., "A Comparative Study of Methanol Synthesis from CO ₂ /H ₂ and CO/H ₂ over a Cu/ZnO/Al ₂ O ₃ Catalyst," Research Center for Catalytic Tech., Pohang Univ. of Science and Tech. (POSTECH) ad Res. Inst. of Ind. Science and Tech. (RIST) (1993)	
CAS		John G. Nunan, et al., "Methanol Synthesis Catalysts Based on Cs/Cu/ZnO/M ₂ O ₃ (M=Al, Cr, Ga): Genesis from Coprecipitated Hydrotalcite-like Precursors, Solid-state Chemistry, Morphology and Stability," <i>Inorg. Chemistry</i> , 28, 3868-3874 (1989)	

Examiner Signature	Dr. [Signature]	Date Considered	8/2/05
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Sheet	3	of	Filing Date		
		5	First Named Inventor		
			Group Art Unit		
			Examiner Name		
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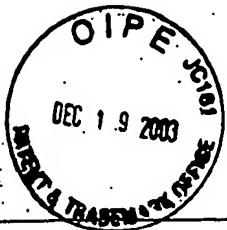
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(CAT)		N. Ray, et al., "Deactivation of Low Temperature Shift Catalyst," <i>J. Res. Inst. Catalysis, Hokkaido Univ.</i> , Vol. 30, No. 1, pp. 25-38 (1982)				
		P. Gherardi, et al., "Preparation of Cu-Zn-Al Mixed Hydroxycarbonates Precursors of Catalysts for the Synthesis of ethanol at Low Pressure," <i>Preparation of Catalysis III</i> , 723-733 (1983)				
		C. Rhodes, et al. "Water-gas shift reaction: finding the mechanistic boundary," <i>Catalysis Today</i> , 43-58 (1995)				
		C.V. Ovesen, et al., "A Kinetic Model of the Water Gas Shift Reaction," <i>J. of Catalysis</i> , 134, 445-468 (1992)				
(CAT)		C. Busetto, et al., "Catalysts for Low-Temperature Methanol Synthesis. Preparation of Cu-Zn-Al Mixed Oxides via Hydrotalcite-like Precursors," <i>J. of Catalysis</i> , 85, 260-266 (1984)				

Examiner Signature	<i>[Signature]</i>	Date Considered	8/2/05
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(Rev. 7-2-1997 Pub. 600)

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		Examiner Name	
Sheet	4	of	5
Attorney Docket Number			

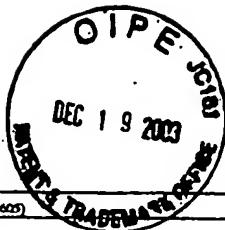
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CAS		J.-L. Li, et al., "Enhancement in methanol synthesis activity of a copper/zinc/aluminum oxide catalyst by ultrasonic treatment during the course of the preparation procedure," <i>Applied Catalysis A: General</i> , 139, 87-96 (1996)
		R.H. Höppener, et al. "Preparation and Characterization of Stable Copper/Zinc Oxide/ Alumina catalysis for Methanol Synthesis," <i>Applied Catalysis</i> , 25, 109-119 (1986)
CAG		F. Cavani, et al., "Hydrotalcite-type Anionic Clays: Preparation, Properties and Application" <i>Catalysis Today</i> , 11, 173-301 (1991)

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PTO/3506B (10-96)

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Substitute for form 1450BPTO				Complete if Known	
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Sheet	5	of	5	First Named Inventor	
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CAS		S. Velu, et al., "Oxidative steam reforming of methanol over CuZnAl(Zr)-oxide catalysts; a new and efficient method for the production of CO-free hydrogen for fuel cells." <i>Chem. Commun.</i> , 2341-2342 (1999)
		S. Velu, et al., "Selective production of hydrogen by partial oxidation of methanol over catalysts derived from CuZnAl-layered double hydroxides" <i>Catalysis Letters</i> 62, 159-167 (1999)
		Gines, M.J.L., et al., "Activity and structure sensitivity of the water-gas shift reaction over Cu-Zn-Al mixed oxide catalysts." <i>Applied Catalysis A: General</i> 131, 283-296, (1995)
		Gines, M.J.L., et al., "Thermal Decomposition of Cu-Based Hydroxycarbonate Catalytic Precursors for the Low-temperature CO-Shift Reaction." <i>Journal of Thermal Analysis</i> , 50, 745-756 (1997)
		Hilmen, Anne-Mette, et al., "Synthesis of higher alcohols on copper catalysts supported on alkali-promoted basic oxides." <i>Applied Catalysis A: General</i> 169, 355-372, (1998)
CAS		S. Velu, et al., Selective production of hydrogen for fuel cells via oxidative steam reforming of methanol over CuZnAl(Zr)-oxide catalysts." <i>Applied Catalysis A: General</i> 213, 47-63, (2001).

Examiner Signature	<i>[Signature]</i>	Date Considered	8/2/05
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